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Infiltrator IM™- and TW™- Series Septic Tank General Installation Instructions

INFILTRATOR® septic tanks

Before You Begin

Infiltrator Systems' septic tanks must be installed according to state and/or local regulations, which supersede the manufacturer's installation instructions. If unsure of the installation requirements for a particular site, contact the local health department or permitting authority.

WARNING: IMPLOSIONS MAY CAUSE SERIOUS INJURY
Follow Infiltrator Systems Inc. vacuum test instructions

Materials and Equipment Needed

- ☐ Infiltrator IM or TW tank
- ☐ Access port lids (included)
- ☐ 10 screws per lid (included)
- ☐ Inlet/outlet gaskets (included)
- ☐ Inlet/outlet tees*
- ☐ Tape measure
- ☐ Pipe, risers, etc.
- ☐ Socket wrench
- ☐ Excavator
- ☐ Shovel
- ☐ Level
- ☐ 5-inch-diameter (125 mm) hole saw (IM tanks)
- ☐ 5¼-inch-diameter (133 mm) hole saw (TW-Series only)
- ☐ Utility knife
- ☐ PVC pipe glue with primer

tee inclusion varies by state/province

Installation Site Selection

1. Avoid installation of the tank in vehicular traffic areas. The tank is designed for non-traffic applications.

2. The maximum vehicle load is a 4,500-pound (20 kN) axle load at a soil cover depth of 6 to 48* inches (150 to 1,200 mm).

**18-inch (450 mm) max. burial depth in Florida; 36-inch (900 mm) max. burial depth in Massachusetts, New Hampshire, North Carolina, and Oregon.*

Excavating and Preparing the Site

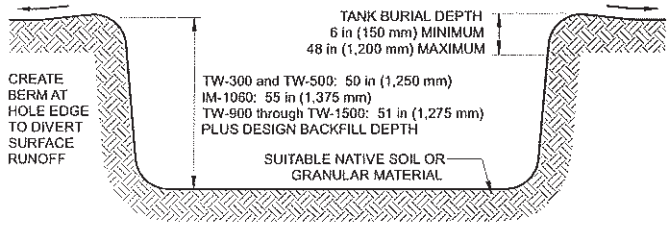
1. Unless buoyancy control measures are required, the excavation width and length should be 12 to 36 inches (300 to 900 mm) larger than the tank on each side. See Infiltrator IM- and TW-Series Septic Tank Buoyancy Control Guidance document, available online at www.infiltratorsystems.com, for specific excavation requirements.

2. Excavate to account for the height of tank. 55 inches (1,375 mm) for the IM-1060, 51 inches (1,275 mm) for the TW-900 through TW-1500, and 50 inches (1,250 mm) for the TW-300 and TW-500. Also account for 4 inches (100 mm) of bedding (if required), and backfill thickness (permissible cover depth is 0.5 to 4 feet (150 to 1,200 mm) of soil).

3. Inspect bottom of excavation to verify suitability of native soil for tank installation. Soils with large, protruding, or sharp stones or other similar objects that may damage the tank are not suitable.

4. The tank may be bed either in suitable native soil (see Backfilling the Tank section) or a minimum 4-inch (100 mm) layer of pea stone, sand, gravel, or other similar material having particles less than 3 inches (75 mm) in diameter.

5. Create a uniform, level bedding surface to ensure that the bottom of the tank is evenly supported at the base of the excavation. Verify that the base of excavation is flat.



Installing the Tank

1. Inspect the tank for damage before installation.

2. If the tank inlet and outlet penetrations are not drilled, drill holes using the drill points provided at each of the inlet and outlet ports according to the Inlet and Outlet Hole Locations section of this document. The inlet and outlet may be drilled on either the sides or ends of the tank, as required based on applicable codes and site conditions.

Florida, Indiana, Kentucky, Oregon, West Virginia and certain Texas tank inlet/outlet holes are factory drilled.

3. The gaskets supplied with the tank are compatible with Schedule 40 and SDR 35 pipe using a 5-inch-diameter (125 mm) hole saw with IM tanks, and a 5¼-inch-diameter (133 mm) hole saw with TW-Series tanks.

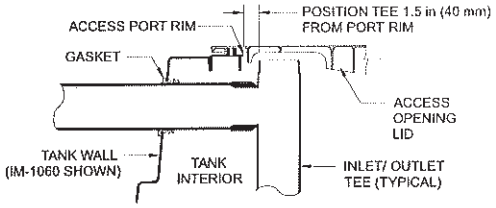
4. Install the rubber gaskets at the inlet and outlet.

5. Using the tank's integral lifting lugs, lower tank into excavation.

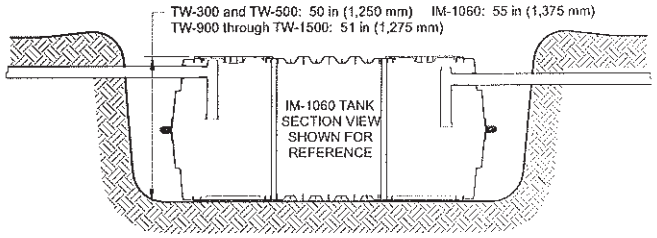
6. Slide the inlet and outlet pipes* through the gaskets.

**For North Carolina, the inlet pipe shall be a straight pipe with no tee.*

7. Horizontally position the tee 1½ inches (40 mm) from the access port rim as shown in the detail below. This allows the tee to fit into the access port lid.



Note: Illinois requires a 6-inch (150 mm) drop for inlet tee.



8. Install lids and risers (see Installing Risers section) as necessary.

Backfilling the Tank

Note: Infiltrator tanks do not require filling with water prior to backfill placement.

1. Backfill with suitable native soil. If native soil is unsuitable, replace unsuitable fraction with suitable soil.

2. Suitable soil shall include soil textural classes defined in the United States Department of Agriculture soil triangle. Suitable soil textural classes are based on the tank installation depth, as measured from finished grade to the top of tank.

a) For a tank installation depth of 0.5 to 2.0 feet (150 to 600 mm), suitable soil textures include:

i. Sand
ii. Loamy sand
iii. Sandy loam
iv. Loam
v. Sandy clay loam
vi. Sandy clay

vii. The following, assuming that the sand particle fraction by weight (i.e. % that would be retained on No. 200 sieve, as per ASTM D2487) is greater than 30%: silt loam, clay loam, and clay
viii. The following, assuming that the sand particle fraction by weight (i.e. % that would be retained on No. 200 sieve, as per ASTM D2487) is less than 30% and the soil is shown to be dilatant (refer to Step 5 below for simple dilatancy test to be conducted in the field): silt loam, silt, clay loam, silt clay loam, silty clay, and clay

b) For a tank installation depth that is greater than 2.0 feet and up to 4.0 feet (600 to 1,200 mm), suitable soil textures include:

i. Sand
ii. Loamy sand
iii. Sandy loam
iv. Loam
v. Sandy clay loam
vi. Sandy clay

vii. Silt loam, clay loam, and clay having at least a 30% sand particle fraction by weight (i.e. % that would be retained on No. 200 sieve, as per ASTM D2487).